Yasamin Kazemi

List of Publications by Year
in descending order

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130 papers	12,374 citations	18482 62 h-index	25787 108 g-index
132 all docs	132 docs citations	132 times ranked	5955 citing authors

#	Article	IF	Citations
1	Poly(lactic acid) crystallization. Progress in Polymer Science, 2012, 37, 1657-1677.	24.7	1,190
2	Poly (lactic acid) foaming. Progress in Polymer Science, 2014, 39, 1721-1741.	24.7	401
3	Lightweight Polypropylene/Stainless-Steel Fiber Composite Foams with Low Percolation for Efficient Electromagnetic Interference Shielding. ACS Applied Materials & Interfaces, 2014, 6, 11091-11100.	8.0	295
4	A study of cell nucleation in the extrusion of polypropylene foams. Polymer Engineering and Science, 1997, 37, 1-10.	3.1	285
5	Flexible, Ultrathin, and High-Efficiency Electromagnetic Shielding Properties of Poly(Vinylidene) Tj ETQq1 1 0.784314 rgBT /Overlock 10	8.0	264
6	Effect of the crystallinity and morphology on the microcellular foam structure of semicrystalline polymers. Polymer Engineering and Science, 1996, 36, 2645-2662.	3.1	263
7	Low density microcellular foam processing in extrusion using CO2. Polymer Engineering and Science, 1998, 38, 1812-1823.	3.1	248
8	Strategies for achieving ultra low-density polypropylene foams. Polymer Engineering and Science, 2002, 42, 1481-1492.	3.1	243
9	Ultralow-Threshold and Lightweight Biodegradable Porous PLA/MWCNT with Segregated Conductive Networks for High-Performance Thermal Insulation and Electromagnetic Interference Shielding Applications. ACS Applied Materials & Interfaces, 2018, 10, 1195-1203.	8.0	241
10	Processing and characterization of microcellular foamed high-density polythylene/isotactic polypropylene blends. Polymer Engineering and Science, 1998, 38, 1205-1215.	3.1	237
11	Fundamental foaming mechanisms governing the volume expansion of extruded polypropylene foams. Journal of Applied Polymer Science, 2004, 91, 2661-2668.	2.6	236
12	Cell morphology and property relationships of microcellular foamed pvc/wood-fiber composites. Polymer Engineering and Science, 1998, 38, 1862-1872.	3.1	223
13	Advances in electromagnetic shielding properties of composite foams. Journal of Materials Chemistry A, 2021, 9, 8896-8949.	10.3	184
14	A Study of the Crystallization, Melting, and Foaming Behaviors of Polylactic Acid in Compressed CO2. International Journal of Molecular Sciences, 2009, 10, 5381-5397.	4.1	182
15	Effects of die geometry on cell nucleation of PS foams blown with CO2. Polymer Engineering and Science, 2003, 43, 1378-1390.	3.1	176
16	Mechanism of extensional stress-induced cell formation in polymeric foaming processes with the presence of nucleating agents. Journal of Supercritical Fluids, 2012, 63, 187-198.	3.2	174
17	Fundamental mechanisms of cell nucleation in polypropylene foaming with supercritical carbon dioxideâ€"Effects of extensional stresses and crystals. Journal of Supercritical Fluids, 2013, 79, 142-151.	3.2	174
18	Synergism between carbon materials and Ni chains in flexible poly(vinylidene fluoride) composite films with high heat dissipation to improve electromagnetic shielding properties. Carbon, 2018, 127, 469-478.	10.3	169

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19	Ultra-tough and super thermal-insulation nanocellular PMMA/TPU. Chemical Engineering Journal, 2017, 325, 632-646.	12.7	165
20	Incorporating a microcellular structure into PVDF/grapheneâ€“nanoplatelet composites to tune their electrical conductivity and electromagnetic interference shielding properties. Journal of Materials Chemistry C, 2018, 6, 10292-10300.	5.5	165
21	High thermal insulation and compressive strength polypropylene foams fabricated by high-pressure foam injection molding and mold opening of nano-fibrillar composites. Materials and Design, 2017, 131, 1-11.	7.0	161
22	Heat transfer in microcellular polystyrene/multi-walled carbon nanotube nanocomposite foams. Carbon, 2015, 93, 819-829.	10.3	158
23	Poly(lactic acid)-Based in Situ Microfibrillar Composites with Enhanced Crystallization Kinetics, Mechanical Properties, Rheological Behavior, and Foaming Ability. Biomacromolecules, 2015, 16, 3925-3935.	5.4	157
24	Enhanced Electrical and Electromagnetic Interference Shielding Properties of Polymerâ€“Graphene Nanoplatelet Composites Fabricated via Supercritical-Fluid Treatment and Physical Foaming. ACS Applied Materials & Interfaces, 2018, 10, 30752-30761.	8.0	156
25	Lightweight and tough nanocellular PP/PTFE nanocomposite foams with defect-free surfaces obtained using in situ nanofibrillation and nanocellular injection molding. Chemical Engineering Journal, 2018, 350, 1-11.	12.7	154
26	Effects of nano-/micro-sized additives on the crystallization behaviors of PLA andÂPLA/CO2 mixtures. Polymer, 2013, 54, 2382-2391.	3.8	150
27	Superhydrophobic and Oleophilic Open-Cell Foams from Fibrillar Blends of Polypropylene and Polytetrafluoroethylene. ACS Applied Materials & Interfaces, 2014, 6, 21131-21140.	8.0	145
28	Development of polylactide bead foams with double crystal melting peaks. Polymer, 2015, 69, 83-94.	3.8	142
29	Tunable electromagnetic shielding properties of conductive poly(vinylidene fluoride)/Ni chain composite films with negative permittivity. Journal of Materials Chemistry C, 2017, 5, 6954-6961.	5.5	139
30	Lightweight and flexible graphene/SiC-nanowires/ poly(vinylidene fluoride) composites for electromagnetic interference shielding and thermal management. Carbon, 2020, 156, 58-66.	10.3	138
31	Low-density and structure-tunable microcellular PMMA foams with improved thermal-insulation and compressive mechanical properties. European Polymer Journal, 2017, 95, 382-393.	5.4	136
32	Injection-molded microcellular PLA/graphite nanocomposites with dramatically enhanced mechanical and electrical properties for ultra-efficient EMI shielding applications. Journal of Materials Chemistry C, 2018, 6, 6847-6859.	5.5	136
33	Development of PLA/cellulosic fiber composite foams using injection molding: Crystallization and foaming behaviors. Composites Part A: Applied Science and Manufacturing, 2016, 83, 130-139.	7.6	129
34	Advanced bimodal polystyrene/multi-walled carbon nanotube nanocomposite foams for thermal insulation. Carbon, 2017, 120, 1-10.	10.3	124
35	Modelling of thermal transport through a nanocellular polymer foam: toward the generation of a new superinsulating material. Nanoscale, 2017, 9, 5996-6009.	5.6	124
36	Lightweight, super-elastic, and thermal-sound insulation bio-based PEBA foams fabricated by high-pressure foam injection molding with mold-opening. European Polymer Journal, 2018, 103, 68-79.	5.4	120

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37	Achieving wideband microwave absorption properties in PVDF nanocomposite foams with an ultra-low MWCNT content by introducing a microcellular structure. Journal of Materials Chemistry C, 2020, 8, 58-70.	5.5	120
38	Development of high thermal insulation and compressive strength BPP foams using mold-opening foam injection molding with in-situ fibrillated PTFE fibers. European Polymer Journal, 2018, 98, 1-10.	5.4	117
39	Enhanced Thermal Conductivity of Graphene Nanoplateletâ€“Polymer Nanocomposites Fabricated via Supercritical Fluid-Assisted in Situ Exfoliation. ACS Applied Materials & Interfaces, 2018, 10, 1225-1236.	8.0	114
40	Double Crystal Melting Peak Generation for Expanded Polypropylene Bead Foam Manufacturing. Industrial & Engineering Chemistry Research, 2013, 52, 2297-2303.	3.7	113
41	Use of stereocomplex crystallites for fully-biobased microcellular low-density poly(lactic acid) foams for green packaging. Chemical Engineering Journal, 2017, 327, 1151-1162.	12.7	112
42	An Effective Design Strategy for the Sandwich Structure of PVDF/GNP-Ni-CNT Composites with Remarkable Electromagnetic Interference Shielding Effectiveness. ACS Applied Materials & Interfaces, 2020, 12, 36568-36577.	8.0	112
43	A versatile foaming platform to fabricate polymer/carbon composites with high dielectric permittivity and ultra-low dielectric loss. Journal of Materials Chemistry A, 2019, 7, 133-140.	10.3	111
44	Poly(vinylidene fluoride) foams: a promising low-k dielectric and heat-insulating material. Journal of Materials Chemistry C, 2018, 6, 3065-3073.	5.5	110
45	Change in the critical nucleation radius and its impact on cell stability during polymeric foaming processes. Chemical Engineering Science, 2009, 64, 4899-4907.	3.8	109
46	The effects of extensional stresses on the foamability of polystyreneâ€“talc composites blown with carbon dioxide. Chemical Engineering Science, 2012, 75, 49-62.	3.8	109
47	A facile method to increase the charge storage capability of polymer nanocomposites. Nano Energy, 2015, 15, 54-65.	16.0	108
48	Strong and super thermally insulating in-situ nanofibrillar PLA/PET composite foam fabricated by high-pressure microcellular injection molding. Chemical Engineering Journal, 2020, 390, 124520.	12.7	103
49	A novel technology to manufacture biodegradable polylactide bead foam products. Materials and Design, 2015, 83, 413-421.	7.0	101
50	Advances in precursor system for silica-based aerogel production toward improved mechanical properties, customized morphology, and multifunctionality: A review. Advances in Colloid and Interface Science, 2020, 276, 102101.	14.7	99
51	Ultra-lightweight, super thermal-insulation and strong PP/CNT microcellular foams. Composites Science and Technology, 2020, 191, 108084.	7.8	97
52	Role of elastic strain energy in cell nucleation of polymer foaming and its application for fabricating sub-microcellular TPU microfilms. Polymer, 2017, 119, 28-39.	3.8	91
53	Lightweight and strong microcellular injection molded PP/talc nanocomposite. Composites Science and Technology, 2018, 168, 38-46.	7.8	89
54	Critical processing parameters for foamed bead manufacturing in a lab-scale autoclave system. Chemical Engineering Journal, 2013, 214, 180-188.	12.7	82

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55	Tuning viscoelastic and crystallization properties of polypropylene containing in-situ generated high aspect ratio polyethylene terephthalate fibrils. Polymer, 2015, 68, 83-91.	3.8	80
56	Ultralight Microcellular Polymerâ€“Graphene Nanoplatelet Foams with Enhanced Dielectric Performance. ACS Applied Materials & Interfaces, 2018, 10, 19987-19998.	8.0	79
57	Mechanisms of nanoclay-enhanced plastic foaming processes: effects of nanoclay intercalation and exfoliation. Journal of Nanoparticle Research, 2013, 15, 1.	1.9	77
58	Layered Foam/Film Polymer Nanocomposites with Highly Efficient EMI Shielding Properties and Ultralow Reflection. Nano-Micro Letters, 2022, 14, 19.	27.0	76
59	Structure-tunable thermoplastic polyurethane foams fabricated by supercritical carbon dioxide foaming and their compressive mechanical properties. Journal of Supercritical Fluids, 2019, 149, 127-137.	3.2	73
60	Dependence of electromagnetic interference shielding ability of conductive polymer composite foams with hydrophobic properties on cellular structure. Journal of Materials Chemistry C, 2020, 8, 7401-7410.	5.5	70
61	Enhanced electromagnetic wave absorption performance of polymer/SiC-nanowire/MXene (Ti3C2Tx) composites. Carbon, 2021, 179, 408-416.	10.3	66
62	Study of the bubble nucleation and growth mechanisms in high-pressure foam injection molding through in-situ visualization. European Polymer Journal, 2016, 76, 2-13.	5.4	65
63	Characterization of the Structure, Acoustic Property, Thermal Conductivity, and Mechanical Property of Highly Expanded Openâ€Cell Polycarbonate Foams. Macromolecular Materials and Engineering, 2015, 300, 48-56.	3.6	63
64	Steam-chest molding of expanded thermoplastic polyurethane bead foams and their mechanical properties. Chemical Engineering Science, 2017, 174, 337-346.	3.8	61
65	A comprehensive review of cell structure variation and general rules for polymer microcellular foams. Chemical Engineering Journal, 2022, 430, 132662.	12.7	60
66	Foaming Poly(vinyl alcohol)/Microfibrillated Cellulose Composites with CO₂ and Water as Co-blowing Agents. Industrial & Engineering Chemistry Research, 2014, 53, 11962-11972.	3.7	59
67	Evaluation and modeling of electrical conductivity in conductive polymer nanocomposite foams with multiwalled carbon nanotube networks. Chemical Engineering Journal, 2021, 411, 128382.	12.7	59
68	Acidâ€“Base Polymeric Foams for the Adsorption of Micro-oil Droplets from Industrial Effluents. Environmental Science & Technology, 2017, 51, 8552-8560.	10.0	57
69	Lightweight, thermally insulating, and low dielectric microcellular high-impact polystyrene (HIPS) foams fabricated by high-pressure foam injection molding with mold opening. Journal of Materials Chemistry C, 2018, 6, 12294-12305.	5.5	55
70	Nanocellular poly(ether-block-amide)/MWCNT nanocomposite films fabricated by stretching-assisted microcellular foaming for high-performance EMI shielding applications. Journal of Materials Chemistry C, 2021, 9, 1245-1258.	5.5	53
71	Experimental observation and modeling of fiber rotation and translation during foam injection molding of polymer composites. Composites Part A: Applied Science and Manufacturing, 2016, 88, 67-74.	7.6	51
72	Determination of Solubilities of CO₂ in Linear and Branched Polypropylene Using a Magnetic Suspension Balance and a PVT Apparatus. Journal of Chemical & Engineering Data, 2010, 55, 4885-4895.	1.9	50

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73	Development of high-porosity resorcinol formaldehyde aerogels with enhanced mechanical properties through improved particle necking under CO 2 supercritical conditions. Journal of Colloid and Interface Science, 2017, 485, 65-74.	9.4	49
74	Highly stretchable conductive thermoplastic vulcanizate/carbon nanotube nanocomposites with segregated structure, low percolation threshold and improved cyclic electromechanical performance. Journal of Materials Chemistry C, 2018, 6, 350-359.	5.5	48
75	CVD carbon-coated carbonized loofah sponge loaded with a directionally arrayed MXene aerogel for electromagnetic interference shielding. Journal of Materials Chemistry A, 2021, 9, 358-370.	10.3	48
76	Highly Compressible Polymer Composite Foams with Thermal Heating-Boosted Electromagnetic Wave Absorption Abilities. ACS Applied Materials & Interfaces, 2020, 12, 50793-50802.	8.0	47
77	Nanofibrillated polymer systems: Design, application, and current state of the art. Progress in Polymer Science, 2021, 113, 101346.	24.7	47
78	Origins of the failure of classical nucleation theory for nanocellular polymer foams. Soft Matter, 2011, 7, 7351.	2.7	46
79	Non-crosslinked thermoplastic reticulated polymer foams from crystallization-induced structural heterogeneities. Polymer, 2018, 135, 185-192.	3.8	46
80	Effect of the melt compressibility and the pressure drop rate on the cell-nucleation behavior in foam injection molding with mold opening. European Polymer Journal, 2017, 92, 314-325.	5.4	45
81	Rotational foam molding of polypropylene with control of melt strength. Advances in Polymer Technology, 2003, 22, 280-296.	1.7	44
82	The Effects of Exfoliated Nano-clay on the Extrusion Microcellular Foaming of Amorphous and Crystalline Nylon. Journal of Cellular Plastics, 2006, 42, 271-288.	2.4	42
83	rGO/Fe₃O₄ hybrid induced ultra-efficient EMI shielding performance of phenolic-based carbon foam. RSC Advances, 2019, 9, 20643-20651.	3.6	41
84	Effects of polymer-filler interactions on controlling the conductive network formation in polyamide 6/multi-Walled carbon nanotube composites. Polymer, 2019, 178, 121684.	3.8	40
85	The effect of graphene-nanoplatelets on gelation and structural integrity of a polyvinyltrimethoxysilane-based aerogel. RSC Advances, 2019, 9, 11503-11520.	3.6	39
86	Theoretical modeling and experimental verification of percolation threshold with MWCNTsâ€™ rotation and translation around a growing bubble in conductive polymer composite foams. Composites Science and Technology, 2020, 199, 108345.	7.8	38
87	Novel and simple design of nanostructured, super-insulative and flexible hybrid silica aerogel with a new macromolecular polyether-based precursor. Journal of Colloid and Interface Science, 2020, 561, 890-901.	9.4	37
88	Nanostructure to thermal property relationship of resorcinol formaldehyde aerogels using the fractal technique. Nanoscale, 2018, 10, 10564-10575.	5.6	34
89	Insight into the Directional Thermal Transport of Hexagonal Boron Nitride Composites. ACS Applied Materials & Interfaces, 2019, 11, 41726-41735.	8.0	33
90	Wrong expectation of superinsulation behavior from largely-expanded nanocellular foams. Nanoscale, 2020, 12, 13064-13085.	5.6	32

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91	In Situ Interface Design in Graphene-Embedded Polymeric Silica Aerogel with Organic/Inorganic Hybridization. ACS Applied Materials & Interfaces, 2020, 12, 26635-26648.	8.0	31
92	Rheological and foaming behaviors of long-chain branched polyamide 6 with controlled branch length. Polymer, 2021, 224, 123730.	3.8	29
93	Polyimide aerogels with novel bimodal micro and nano porous structure assembly for airborne nano filtering applications. RSC Advances, 2020, 10, 22909-22920.	3.6	28
94	Strong, highly hydrophobic, transparent, and super-insulative polyorganosiloxane-based aerogel. Chemical Engineering Journal, 2021, 413, 127488.	12.7	28
95	Microcellular foamed polyamide 6/carbon nanotube composites with superior electromagnetic wave absorption. Journal of Materials Science and Technology, 2022, 117, 215-224.	10.7	28
96	Insights into in-situ sol-gel conversion in graphene modified polymer-based silica gels for multifunctional aerogels. Chemical Engineering Journal, 2020, 392, 123813.	12.7	27
97	Towards maximal cell density predictions for polymeric foams. Polymer, 2011, 52, 5622-5629.	3.8	26
98	Maximal cell density predictions for compressible polymer foams. Polymer, 2013, 54, 841-845.	3.8	26
99	Study of the foaming mechanisms associated with gas counter pressure and mold opening using the pressure profiles. Chemical Engineering Science, 2017, 167, 105-119.	3.8	26
100	Modelling of Rod-Like Fillersâ€™ Rotation and Translation near Two Growing Cells in Conductive Polymer Composite Foam Processing. Polymers, 2018, 10, 261.	4.5	26
101	Prediction of thermal conductivity of micro/nano porous dielectric materials: Theoretical model and impact factors. Energy, 2021, 233, 121140.	8.8	26
102	Robust, ultra-insulative and transparent polyethylene-based hybrid silica aerogel with a novel non-particulate structure. Journal of Colloid and Interface Science, 2019, 548, 206-216.	9.4	25
103	Recent Advances in Graphene-Based Polymer Nanocomposites and Foams for Electromagnetic Interference Shielding Applications. Industrial & Engineering Chemistry Research, 2022, 61, 1545-1568.	3.7	25
104	Reinforced resorcinol formaldehyde aerogel with Co-assembled polyacrylonitrile nanofibers and graphene oxide nanosheets. Materials and Design, 2018, 151, 154-163.	7.0	24
105	Multi-dimensional analysis of micro-/nano-polymeric foams by confocal laser scanning microscopy and foam simulations. Chemical Engineering Science, 2019, 207, 892-902.	3.8	24
106	Facilitating supercritical CO2 assisted exfoliation of graphene nanoplatelets with the polymer matrix. Chemical Engineering Journal, 2020, 394, 124930.	12.7	24
107	Accurate theoretical modeling of cell growth by comparing with visualized data in high-pressure foam injection molding. European Polymer Journal, 2019, 119, 189-199.	5.4	18
108	Using a Supercritical Fluid-Assisted Thin Cell Wall Stretchingâ€“Defoaming Method to Enhance the Nanofiller Dispersion, EMI Shielding, and Thermal Conduction Property of CNF/PVDF Nanocomposites. Industrial & Engineering Chemistry Research, 2022, 61, 3647-3659.	3.7	18

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109	Polylactic acid/UV-crosslinked in-situ ethylene-propylene-diene terpolymer nanofibril composites with outstanding mechanical and foaming performance. Chemical Engineering Journal, 2022, 447, 137509.	12.7	18
110	LDPE/MWCNT and LDPE/MWCNT/UHMWPE self-reinforced fiber-composite foams prepared via supercritical CO2: A microstructure-engineering property perspective. Journal of Supercritical Fluids, 2021, 174, 105248.	3.2	17
111	Application of a constant hole volume Sanchezâ€“Lacombe equation of state to mixtures relevant to polymeric foaming. Soft Matter, 2018, 14, 4603-4614.	2.7	16
112	Nanofiber fluorescence coating for evaluation of complex solid-/gas-multi-phase and nano-/micro-multi-scale nanocomposite foam structure. Progress in Organic Coatings, 2021, 154, 106183.	3.9	15
113	Fluorescence assisted visualization and destruction of particles embedded thin cell walls in polymeric foams via supercritical foaming. Journal of Supercritical Fluids, 2022, 181, 105511.	3.2	15
114	Structure-gradient thermoplastic polyurethane foams with enhanced resilience derived by microcellular foaming. Journal of Supercritical Fluids, 2022, 188, 105667.	3.2	15
115	Microcellular foams simultaneous reinforcing and toughening strategy of combining nano-fibrillation network and supercritical solid-state foaming. Polymer, 2022, 252, 124928.	3.8	13
116	From micro/nano structured isotactic polypropylene to a multifunctional low-density nanoporous medium. RSC Advances, 2016, 6, 108056-108066.	3.6	12
117	A semi-empirical model relating micro structure to acoustic properties of bimodal porous material. Journal of Applied Physics, 2015, 117, .	2.5	11
118	Polymeric Foaming Predictions from the Sanchez-Lacombe Equation of State: Application to Polypropylene-Carbon Dioxide Mixtures. Physical Review Applied, 2017, 8, .	3.8	11
119	Synthesis, structures and properties of hydrophobic Alkyltrimethoxysilane-Polyvinyltrimethoxysilane hybrid aerogels with different alkyl chain lengths. Journal of Colloid and Interface Science, 2022, 608, 720-734.	9.4	11
120	Molecular engineering of the surface of boron nitride nanotubes for manufacture of thermally conductive dielectric polymer composites. Applied Surface Science, 2022, 587, 152779.	6.1	11
121	Cost-effective and reproducible technologies for fabrication of tissue engineered scaffolds: The state-of-the-art and future perspectives. Polymer, 2022, 244, 124681.	3.8	10
122	Evaluating Characteristic Parameters for Carbon Dioxide in the Sanchezâ€“Lacombe Equation of State. Journal of Chemical & Engineering Data, 2017, 62, 585-595.	1.9	9
123	Mechanically robust and thermally insulating polyarylene ether nitrile with a bone-like structure. Materials and Design, 2020, 196, 109099.	7.0	9
124	Flexible Poly(ether-block-amide)/Carbon Nanotube Composites for Electromagnetic Interference Shielding. ACS Applied Nano Materials, 2022, 5, 7598-7608.	5.0	9
125	The critical requirement for high-pressure foam injection molding with supercritical fluid. Polymer, 2021, 238, 124388.	3.8	8
126	Role of interfacial adhesion and fiber length on the mechanical performance fiber reinforced thermoplastic elastomers. Composites Science and Technology, 2021, 213, 108928.	7.8	7

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127	Bio-inspired polyethylene-based composite reinforced by thermoplastic polyurethane (TPU) fiber for aerogel production. AIP Conference Proceedings, 2019, , .	0.4	4
128	Research on cellular morphology and mechanical properties of microcellular injectionâ€“molded BCPP and its blends. International Journal of Advanced Manufacturing Technology, 2021, 116, 2223-2241.	3.0	4
129	An off-lattice model of the Sanchez-Lacombe Eq. of state for polymers with finite flexibility. Polymer, 2021, 215, 123334.	3.8	2
130	Thermally conductive polymer-graphene nanoplatelet composite foams. AIP Conference Proceedings, 2019, , .	0.4	1